

US009409609B2

(12) United States Patent

Camosy

(10) Patent No.: US 9,409,609 B2

(45) **Date of Patent:** Aug. 9, 2016

(54) WAKE CONVERGENCE DEVICE FOR A PICK-UP TRUCK

(71) Applicant: Auto Research Center, LLC,

Indianapolis, IN (US)

(72) Inventor: Michael Camosy, Indianapolis, IN (US)

(73) Assignee: Auto Research Center, LLC,

Indianapolis, IN (US)

(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 14/666,533

(22) Filed: Mar. 24, 2015

(65) Prior Publication Data

US 2015/0266521 A1 Sep. 24, 2015

Related U.S. Application Data

- (63) Continuation-in-part of application No. 61/969,519, filed on Mar. 24, 2014.
- (51) Int. Cl. **B62D 27/06** (2006.01) **B62D 35/00** (2006.01)
- (52) U.S. Cl.

CPC *B62D 35/007* (2013.01); *B62D 27/06* (2013.01)

(58) Field of Classification Search

CPC B62D 35/001; B62D 35/00; B62D 35/004; B62D 35/007; B62D 37/02; B62D 35/02; B62D 63/08; B64C 23/06; B64C 2230/04; B64C 2230/06; B64C 23/00; B64C 21/025; B64C 2230/20; B60J 1/2008; B60J 5/108; B60J 5/062; B60J 5/125

296/210, 152, 91; 180/903, 116, 127, 89.1; 293/117

See application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

2,933,344 A	4/1960	Shumaker
3,010,754 A	11/1961	Shumaker
3,276,811 A	10/1966	Schmidt
3,596,975 A	8/1971	Stephen
3,960,402 A	6/1976	Keck
3,999,797 A	12/1976	Kirsch et al.
4,142,755 A	3/1979	Keedy
	(0	. 1

(Continued)

FOREIGN PATENT DOCUMENTS

DE	102008036888	2/2010
WO	2013188669	12/2013
	OTHER PU	JBLICATIONS

Aerodynamic Trailer Systems, LLC SmartTail® The Trucking Industry's First Totally Automated Trailer Air Spoiler from www.atsgreen.com/smarttail.htm (2pages), Jan. 13, 2014.

(Continued)

Primary Examiner — Glenn Dayoan

Assistant Examiner — Sunsurraye Westbrook
(74) Attorney, Agent, or Firm — Ice Miller LLP

(57) ABSTRACT

A wake convergence device for a pick-up truck is provided. The wake convergence device is spaced from the top of a pick-up truck and from the sides of the pick-up truck. The wake convergence device is moveably coupled to an aft end of the cab of the pick-up truck. When the truck is not in motion, the wake convergence device is positioned around the aft end of the pick-up truck. When the truck is in motion, the wake convergence device is moved upward and raised from the cab of the pick-up truck.

20 Claims, 5 Drawing Sheets

